



SEQUENCE LISTING

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Price, Christopher
Anderson, Wesley
Ansari, Aslam

<120> METHODS OF ANALGESIA

<130> 9233-8DV2

<140> US 09/430,735

<141> 1999-10-29

<150> US 09/134,803

<151> 1998-08-14

<160> 53

<170> PatentIn version 3.1

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<222> (6)..(6)

<223> Polymer connected to epsilon-amino group

<400> 1

Tyr Gly Gly Phe Met Lys

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<223> Polymer connected to alpha-amino group

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<222> (6)..(6)

<223> Polymer connected to epsilon-amino group

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<223> Polymer connected to alpha-amino group

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Phe Arg Trp Trp Tyr Lys
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Arg Trp Ile Gly Trp Lys
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<223> AMIDATION

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<222> (6)..(6)
<223> Xaa can be any of the twenty naturally occurring amino acids

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Trp Trp Pro Lys His Xaa
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<223> Xaa is either Lys or Arg

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Trp Trp Pro Xaa

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<223> AMIDATION

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<222> (6)..(6)

<223> Xaa can be any one of the naturally occurring amino acids

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Tyr Pro Phe Gly Phe Xaa

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<222> (1)..(5)

<223> Amino acids are in the D-form

<220>

<221> MOD_RES

<222> (6)..(6)

<223> n is 0 or 1

<220>

<221> MISC_FEATURE

<222> (7)..(7)

<223> Xaa is Gly or the D-form of a naturally occurring amino acid

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<223> Amidation

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<223> Xaa is Gly or the D-form of a naturally occurring amino acid

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<223> Xaa is Al, wherein Al is the D-form of Nve or Mle

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<223> Xaa is B2, wherein B2 is Gly, Phe, or Trp

<220>

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<222> (4)..(4)

<223> Xaa is C3, wherein C3 is Trp or Nap

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<221> MOD_RES

<222> (4)..(4)

<223> AMIDATION

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Tyr Xaa Xaa Xaa

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<223> Synthetic construct

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<222> (1)..(1)

<223> Tyr has at its N-terminus a Me-x-H-y-N group, wherein x is 0, 1, or 2; and y is 0, 1, or 2, with the proviso that x and y is never greater than 2

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<222> (1)..(2)

<223> The amine between the first Tyr and the second Tyr is methylated, wherein z is 0 or 1

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<222> (3)..(3)

<223> Xaa is Phe or (D) Phe

<220>

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<222> (3)..(3)

<223> AMIDATION

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Tyr Tyr Xaa

1

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<223> Xaa is D4, wherein D4 is Lys or Arg

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<223> His is His-z, wherein z is 0 or 1

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<222> (6)..(6)
<223> Xaa is Xaa-z, wherein Xaa is a naturally occurring amino acid and
z is 0 or 1

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Trp Trp Pro Xaa His Xaa
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<223> Xaa is Tic, i.e. 1,2,3,4-tetrahydroisoquinoline-3-carboxylic acid

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Tyr Xaa Phe Phe
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Tyr Xaa Phe Phe
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<222> (1)..(1)
<223> Tyr is Tyr(N-alpha-Me), i.e. N-alpha-methyl tyrosine

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<222> (2)..(2)
<223> Xaa is Tic, i.e. 1,2,3,4-tetrahydroisoquinoline-3-carboxylic acid

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<222> (1)..(1)
<223> Tyr is Tyr(N-alpha-Cmp), i.e. N-alpha-cyclopropylmethyltyrosine

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<222> (2)..(2)
<223> Xaa is Tic, i.e. 1,2,3,4-tetrahydroisoquinoline-3-carboxylic acid

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<223> Xaa is Tic, i.e. 1,2,3,4-tetrahydroisoquinoline-3-carboxylic acid

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<222> (1)..(1)

<223> Tyr is Dmt, i.e. 2,6-dimethyltyrosine

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<222> (2)..(2)

<223> Xaa is Tic, i.e. 1,2,3,4-tetrahydroisoquinoline-3-carboxylic acid

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<222> (1)..(1)

<223> Tyr is Dmt, i.e. 2,6-dimethyltyrosine

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<222> (2)..(2)

<223> Xaa is Tic, i.e. 1,2,3,4-tetrahydroisoquinoline-3-carboxylic acid

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<222> (4)..(4)

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<222> (1)..(1)

<223> Tyr is H-Tyr(3-F), i.e. 3-fluorotyrosine

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<222> (2)..(2)

<223> Xaa is Tic, i.e. 1,2,3,4-tetrahydroisoquinoline-3-carboxylic acid

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Tyr Xaa Phe Phe

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<223> Tyr is H-Tyr(3-Cl), i.e. 3-chlorotyrosine

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<222> (2)..(2)

<223> Xaa is Tic, i.e. 1,2,3,4-tetrahydroisoquinoline-3-carboxylic acid

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<210> 24

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 <222> (2)..(2)
 <223> Xaa is Tic, i.e. 1,2,3,4-tetrahydroisoquinoline-3-carboxylic acid

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 <223> Tyr is Dmt, i.e. 2,6-dimethyltyrosine

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 <222> (2)..(2)
 <223> Xaa is Tic-psi-[CH2-], i.e. 3-methyl-1,2,3,4-tetrahydroisoquinoline-3-carboxylic acid

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 <223> nonpetidyl bond

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<223> Tyr is Dmt, i.e. 2,6-dimethyltyrosine

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<223> nonpeptidyl bond

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1

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<220>
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<222> (3)..(3)
<223> Phe is -NCH3]Phe, i.e. N-methylphenylalanine

<400> 27

Tyr Xaa Phe Phe
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 ne-3-carboxylic acid

<220>
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 <222> (3)..(3)
 <223> Phe is -NH]Hfe, i.e. homophenylalanine

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Tyr Xaa Phe Phe
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 <223> Xaa is Tic-psi-[CH2-], i.e. 3-methyl-1,2,3,4-tetrahydroisoquinoli
 ne-3-carboxylic acid

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<222> (3)..(3)

<223> Gly is Phg, i.e. phenylglycine

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Tyr Xaa Gly Phe

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<222> (4)..(4)

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<222> (3)..(3)

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Tyr Xaa Ala Phe

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<222> (4)..(4)
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<223> Phe is Phe(pNO2), i.e. 4-nitrophenylalanine

<220>
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Tyr Xaa Trp Phe Tyr Pro Ser
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<223> Nle

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Tyr Xaa Phe Phe Leu Leu Asp
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Tyr Xaa Phe
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 <222> (2)..(3)
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Tyr Xaa Phe

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<223> Xaa is Tic-psi-[CH2-], i.e. 3-methyl-1,2,3,4-tetrahydroisoquinoline-3-carboxylic acid

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<221> MOD_RES

<222> (2)..(3)

<223> nonpeptidyl bond

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Tyr Xaa Phe Phe

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Tyr Gly Gly Phe Met

1

5

<210> 49

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Tyr Gly Gly Phe Met Lys

1

5

<210> 50
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<220>
<221> MOD_RES
<222> (1)..(1)
<223> NH2 of Tyr is blocked by butyloxycarbonyl group

<400> 51

Tyr Gly Gly Phe Leu Lys
1 5

<210> 52
<211> 6
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic construct

<220>
<221> MOD_RES
<222> (1)..(1)
<223> NH2 of Tyr is blocked by butyloxycarbonyl group

<220>
<221> MOD_RES
<222> (6)..(6)
<223> Polymer connected to epsilon-amino group

<400> 52

Tyr Gly Gly Phe Leu Lys
1 5

<210> 53

<211> 2

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic construct

<220>

<221> MOD_RES

<222> (1)..(1)

<223> Tyr has at its N-terminus a Me-x-H-y-N group, wherein x is 0, 1, or 2; and y is 0, 1, or 2, with the proviso that x and y is never greater than 2

<220>

<221> MOD_RES

<222> (1)..(2)

<223> The amine between the first Tyr and the second Tyr is methylated, wherein z is 0 or 1

<220>

<221> MOD_RES

<222> (2)..(2)

<223> AMIDATION

<220>

<221> MOD_RES

<222> (2)..(2)

<223> The amidated C-terminal is benzylated (NHBzl)

<400> 53

Tyr Tyr
1